

SOP 27 – Market Forge Autoclave

Sterilmatic Autoclave in Room 129 at SNARC

EQUIPMENT:

- Market Forge's "Sterilmatic" Sterilizer, Model STM-E, Type C
- Gallon jug of tap water
- Items to be sterilized
- Heat protective gloves and face shield
- Autoclave Indicator tape

PROCEDURE:

1. Close drain (do not over tighten or it leaks).
2. Fill with tap water with about 1 jug (1 gallon). Level should be just below lower door edge.
3. Make sure all items to be autoclaved are labeled appropriately (contents / prep date / initials). Stick a piece of "autoclave indicator" tape onto items. It is best NOT to autoclave dirty and clean media together or to autoclave liquids with non-liquid items.
4. Make sure caps on all containers are very loose. Flasks of media should be plugged with gauze or loosely covered with a cap or aluminum foil. Spinner flasks should be set up properly for balanced spinning, but with caps loose.
5. Place items into autoclave: tall items fit best in the back, behind the open door.
6. Close and lock door: push handle down as far as it will go after it is latched.
7. Turn on cooling water below autoclave at red valve and make sure black valve is also open. Remember that "right = tight and left = loose," therefore turn valve counter-clockwise to open. Note that the cooling water is only used to cool the steam exhaust/hot condensate as it exits into PVC pipes and is not actually going into the autoclave.
8. Set exhaust = SLOW if liquids are being autoclaved; otherwise, set to "FAST." The slow setting will prevent boil over.
9. Turn on main power with large switch on the right side of the autoclave.
10. Set timer (usually 15-20 minutes), which starts the autoclave. The timer will start once the autoclave is up to temperature (121 degrees C). There is no bell to indicate when time is up: just watch the timer. NOTE: THE AUTOCLAVE MAKES A LOT OF BUZZING AND BANGING SOUNDS DURING NORMAL OPERATION.
11. After the autoclave cycle, wait until the pressure returns to zero and the temperature is less than 80 degrees C, put on face shield and the heat protective gloves. Crack the door to allow steam to escape.
12. Turn off power at main switch.
13. Shut off cooling water ("right = tight" so turn valve clockwise) at red valve only.
14. Let the items in the autoclave cool so as to avoid handling superheated liquids. Then take out items using orange gloves. Be careful not to compromise sterility.
15. When cool, drain water from autoclave into jug and discard down sink.
16. Leave autoclave door and drain open to air dry. Wash as needed to remove any spills according to manufacturer's instructions.

Daily Autoclave Use Log

Market Forge Sterilmatic

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